

DOCUMENT RESUME

ED 344 927

TM 018 264

AUTHOR Bradley, Jama L.; And Others
TITLE Sharing Assessment Data: An Example from a National Professional Association.
SPONS AGENCY National Intramural-Recreational Sports Association.
PUB DATE Apr 92
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 20-24, 1992).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Agency Cooperation; Comparative Analysis; *Databases; *Data Collection; *Educational Assessment; Evaluation Methods; Formative Evaluation; Higher Education; *Information Dissemination; National Organizations; *Professional Associations; Recreational Programs; Summative Evaluation; Surveys
IDENTIFIERS *National Information Systems; *National Intramural Recreational Sports Assn

ABSTRACT

Alexander Astin, a pioneer in assessment research, has argued persuasively for building national databases that would permit programs and institutions to share common data and thus compare themselves with peers (1987, 1991). Others have suggested that certain process and outcome data should be collected and shared by disciplinary associations and professional organizations. This paper illustrates the attempt by one association to develop a common methodology for gathering formative and summative evaluation data from students, thus making comparative information available to member institutions for use in assessing and improving the quality of their programs. The National Intramural-Recreational Sports Association has developed a system for gathering and disseminating assessment data for use by institutions across the country. A survey instrument and a national data bank of survey results make it possible to assess the value and quality of campus recreation programs. In 1990, the following five pilot institutions began the data bank: (1) the University of California at Los Angeles; (2) Oregon State University (Corvallis); (3) Bowling Green State University (Ohio); (4) Vincennes University (Indiana); (5) Vanderbilt University in Nashville (Tennessee); and (6) the University of Tennessee (Knoxville). Responses from over 2,500 students began the data bank. One chart and two tables contain study findings, and there is a 26-item list of references. (Author/SLD)

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Sharing Assessment Data: An Example from a National Professional Association

Jama L. Bradley
Research Associate
Center for Assessment Research & Development

Trudy W. Banta
Professor and Director
Center for Assessment Research & Development

Judith A. Bryant
Director & Adjunct Professor
Office of Recreation

Center for Assessment Research & Development
University of Tennessee, Knoxville
1819 Andy Holt Avenue
Knoxville, Tennessee 37996-4350
(615) 974-2350

Prepared for the Annual Meeting of the
AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
San Francisco
April 24, 1992

This research was supported in part by a grant from the National Intramural-Recreational Sports Association.

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JUDITH A. BRYANT

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Abstract

Alexander Astin, a pioneer in assessment research, has argued persuasively for the building of national databases that would permit programs and institutions to share common data and thus compare themselves with peers (Astin, 1991; Astin, Green & Korn, 1987). Others have suggested that certain process and outcome data should be collected and shared by disciplinary associations and professional organizations. This paper provides an illustration of an attempt by one association to develop a common methodology for gathering formative and summative evaluation data from students, thus making comparative information available to member institutions for use in assessing and improving the quality of their programs.

Introduction

In 1982, Hanson suggested a dozen reasons why student services professionals were not assessing the effects of their programs on student development. His explanations ranged from competing priorities within the institution, to failure to identify possible uses for assessment data, to the complexities of administering and scoring assessment instruments. Since that time, technology, guidelines for developing and selecting instruments, and the need for evaluative data to justify and enhance existing facilities and programs have propelled the concept of assessment of student services to a new level of importance.

Several national student services organizations have responded to the need to evaluate student development outcomes. In 1990, the National Association of Student Personnel Administrators (NASPA) president Dennis Golden included the goal of expanding and applying research--particularly in the area of out-of-classroom experiences and outcomes assessment--in the organization's agenda (Golden, 1990). In the report of its Task Force 2000 (Johnston, 1990), the Association of College Unions-International (ACU-I) called for an increase in assessment efforts. The National Intramural-Recreational Sports Association (NIRSA) included in its 1990 goals statement active participation in the expansion and application of assessment in the field of student services (Bryant, 1990).

NIRSA, which evolved in 1950 when twenty individuals representing the recreation programs at eleven historically black colleges met in New Orleans, now

represents a membership of more than 5,000 student services professionals involved with campus recreation across the United States and Canada. Out of its membership have come university presidents and chief administrative officers from Grambling University to Ohio State University (Dunn, 1991). As part of its continuing effort to provide professional growth and leadership in the field of student services, NIRSA undertook in 1990 the task of developing a national assessment agenda. According to Delworth & Hanson (1989) and Rentz & Saddlemire (1988), the needs of student affairs staff in general, and NIRSA professional membership in particular, include: (1) becoming more systematic in the assessment of student development, (2) articulating the impact programs and services have on student development and satisfaction, (3) justifying and analyzing cost effectiveness of operations, and (4) contributing comparative assessment research to the activity of strategic planning.

Related Studies

Overview

Early attempts by researchers to measure the impact of out-of-class activities on students have yielded positive results. Studies by Light (1990), Boyer (1987), and Pace (1987) have dispelled the notion that all of the memorable and important learning in college goes on inside the classroom. Some of Astin's early work (1975) indicated that student satisfaction is related to involvement, and involvement to retention. His initial studies of student dropouts also indicated that virtually every

significant effect on persistence (retention) in college could be explained in terms of increasing or decreasing student involvement. Light (1990), Boyer (1987), and Pace (1987), as well as Astin (1984; 1975), have found that commitment to activities outside the classroom has a strong relationship to overall satisfaction with college life and that satisfaction promotes persistence.

Student Growth and Development

What activities generate benefits in the form of positive student development outcomes? Which activities are most cost-effective and provide the maximum opportunity for social interaction within the institution? The Study Group on the Conditions of Excellence in Higher Education, in Involvement In Learning (1984), viewed quality and frequency of contact with faculty and other students outside class as very important factors in student retention and development. Erwin (1989) has suggested that moral development, cultural diversity, establishing autonomy, satisfying interpersonal relationships, and becoming more appreciative of cultural diversity, are examples of global goals to which student activities such as recreational programs and services can contribute.

Dattilo and Murphy (1987) found that adventure recreation programs not only enhance awareness of resources and activity skills but also promote development of decision-making skills. Ewert (1989) listed 28 potential benefits of outdoor recreation pursuits, including tolerance of diversity, leadership skills, self-confidence, communication skills, and stress management. Using survey data obtained from

1,223 recent graduates of the University of Tennessee, Knoxville, Smith and Thomas (1989) found that two of the most powerful predictors of educational satisfaction were relationships with faculty and participation in campus recreation programs. Furthermore, intramural participation was positively correlated with 15 of the 21 educational outcomes specified.

Astin (1984), has identified self-confidence, persistence, empathy, social responsibility and understanding of cultural differences as outcomes associated with student involvement in higher education. The above-mentioned outcomes are identified in many institutional mission statements in the sections containing goals for student development. What is not often found in institutional literature is an abundance of research to verify that these outcomes are actually fostered by campus-sponsored activities and programs.

Involvement and Campus Recreation

What characteristics of a college or university attract and endear students to a particular institution? Which out-of-class programs highly involve students? There is a growing body of evidence that campus recreation programs play a significant role in involving and socializing and thus retaining students. Endo & Bittner (1985) reported that one of the important variables distinguishing University of Colorado resident persisters from resident voluntary dropouts was participation in intramural programs. Churchill and Iwai (1981) found that students with low GPAs who continued at a major western university were more likely to use campus facilities and

services than were students with low GPAs who left the institution. Mallinckrodt and Sedlacek (1987) found that for black students at the University of Maryland, participation in recreational trips and hours spent in the gymnasium were significant factors in predicting retention. Parsons (1989) reported that of 688 students employed in recreation at Bowling Green State University since 1979, 90.2 percent had earned at least a baccalaureate degree.

Methods

Pascarella & Terenzini (1991) have noted that impressive advances in computing power and statistical analysis during the past decade permit the processing of large and complex national data sets with relative ease and efficiency. Recognizing that the collection and analysis of national data sets could enhance substantially the understanding of the impact of college activities and environments on students, NIRSA has developed a system for gathering and disseminating assessment data suitable for use by institutions across the country. This process has two components. The first is a survey instrument, *Quality and Importance of Recreational Services* (QIRS), which is sufficiently flexible to permit modifications that incorporate questions about recreation programs and services offered by any type of institution. The second component is the establishment of the NIRSA National Data Bank, which collects QIRS results gathered by 2- and 4-year institutions. These data can be categorized by institutional type, region of the country, institutional mission, student

demographics, and process of survey administration. Comparative statistics are then disseminated to institutions upon request.

In 1990, the National Intramural-Recreational Sports Association (NIRSA) entered into a contract with the Center for Assessment Research and Development (CARD) at the University of Tennessee, Knoxville (UTK) for the purpose of developing a student survey that could yield data for assessing the value and quality of campus recreation programs. Following an extensive review of the literature in the areas of student development generally and campus recreation in particular, CARD staff developed a pilot version of the QIRS. Items in this questionnaire were designed to assess 1) student satisfaction with campus recreational programs and facilities and 2) the importance of these factors in student recruitment, retention, educational development, satisfaction with college, and campus involvement. The pilot instrument was administered to a sample of 591 UTK seniors, and substantive revisions were made in the questionnaire on the basis of subsequent analyses of students' responses.

During the summer of 1990, five additional NIRSA member institutions were identified whose recreation directors were willing to administer the survey instrument on a trial basis. These directors also agreed to respond to detailed questions about the experience of using the instrument in their own settings so that a technical manual could be developed describing multiple methods of administering the survey.

The five pilot sites were chosen carefully to represent a variety of institutional types and geographic regions. In addition, these two- and four-year institutions were

conducting strong recreational sports programs and had initiated some activity in the area of assessing student outcomes. Three public four-year institutions were selected to participate: The University of California at Los Angeles, Oregon State University, and Bowling Green State University. Vincennes University, a public two-year institution in Indiana, and Vanderbilt University, a privately-supported institution, completed the list of pilot participants.

One institution adapted the questionnaire for use in a telephone survey methodology and one administered it in a required course; others mailed the questionnaire to students, using a variety of sampling techniques. The questionnaire itself offered institutions the opportunity to subtract some items or to add items of local interest.

Results

The structure of the *Quality & Importance of Recreational Services* questionnaire, which has been confirmed by factor analysis, provides information in five basic areas; (1) recruitment and retention, (2) involvement and interaction associated with student services programs in general and recreation in particular, (3) satisfaction with recreation programs and services, (4) perceived benefits from participation, and (5) student perceptions about current and future programs and services.

Involvement

Perhaps the most significant finding to emerge from the data collected at the six pilot institutions is that 95 percent of the students responding said they engage in some form of recreational activity several times per week. Moreover, these students were at least 20 percent more likely to take part in recreational activity than in any other listed campus activity, including cultural events, residence hall activities, and clubs in their majors (see Chart 1).

Insert Chart 1 approximately here

Retention and Recruitment

Responses from over 2,500 participants on the QIRS survey indicate that 30 percent of the students consider recreational facilities and programs to be important factors in deciding to attend and to continue at their chosen institution. Minority respondents were more likely than their caucasian counterparts to consider recreation services and facilities "important" to "very important" in their decisions. African-American male students were much more likely to rate recreational activities as important influences on their decisions to enroll and continue than were white and female students, respectively.

Benefits from Participation

Students perceived their greatest benefits from participating in recreation to be 1) a feeling of physical well-being, 2) stress reduction, (3) respect for others, (4) friendships, and (5) self-confidence. For African-American and Asian students, these items were substantially more important than for their caucasian counterparts. Eighteen survey items were aggregated to form a scale measuring overall perceived benefit from participation in recreation (see Table 1). An analysis of variance of total score on this scale showed differences bases on ethnicity ($F_{3,1222} = 6.48, p < = .0002$). Range tests reveal that African-American students perceive 23 percent more total benefit from participation in recreation programs than caucasian students.

The survey items listed in Table 1 were also subjected to a multivariate analysis of variance to identify the specific items that differed on the basis of ethnicity. The analysis showed an overall effect for ethnicity with a Wilks Lambda of .91, which is equivalent to an $F_{54,3591}$ of 2.0962, $p < = .0001$. Univariate analysis showed that white students differ from African-Americans on six items, from Asians on twelve items. The results are summarized in Table 1.

Insert Table 1 approximately here

African-American and Asian students gave significantly higher ratings than their white counterparts to the following benefits: self-confidence, sense of adventure,

respect for others, friendships, problem-solving skills, and balance/coordination. Other benefits to which minority students consistently gave higher ratings were: stress management, time-management skills, belonging/association and physical well-being. In general, minority students gave higher ratings to 15 of the 18 benefit items listed. These findings are consistent with those of national studies reviewed by Pascarella & Terenzini (1991). These researchers suggest that interpersonal and social self-concept is influenced by students' integration in the social systems of their institutions. Recreation opportunities/involvement appear to assist in the development of a positive self-concept and thus promote the integration process.

Informal Interaction with Faculty

Survey respondents were also asked if taking part in recreational activities encouraged interaction with various campus segments such as faculty, administrators, and area residents. Fifteen percent of the students responding indicated that participation in recreational activities increased their opportunities to interact informally with faculty. Chi-square analyses revealed an association between two of the groups and ethnic background (see Table 2). African-Americans were 38 percent more likely to perceive increases in opportunities for interaction with faculty during recreation participation than expected based on marginal percentage of response (Chi-sq = 8.46, $p = .037$), and minority students in general perceived there to be more opportunities for interaction with campus administrators (Chi-Sq = 16.07, $p < .001$). This is an important result when coupled the with the findings of Astin (1977), Endo

& Bittner (1985), and Pascarella (1980), all of whom found that social interaction between faculty and students outside the classroom is a major factor in student retention. These studies also suggest that informal faculty-student contact serves to strengthen the bond between the student and the institution and therefore increases the potential for undergraduate persistence.

Insert Table 2 approximately here

Present and Future Trends

Additional information gathered from survey data provides details on the current status and future trends of collegiate recreation programs. One noteworthy trend is the rise in popularity of health and wellness activities. No longer is campus recreation associated only with intramural teams and sport clubs. Participation counts on survey items dealing with specific programs and facilities emphasize the fitness and wellness concerns of currently enrolled students. The top five (of ten) recreational activities in which students report participation are: (1) Intramural sports, (2) Fitness/conditioning programs, (3) Drop-in/free play activities, (4) Jogging, and (5) Aquatics. In addition, more aerobic, conditioning and fitness facilities, classes, and activities top the list of suggested changes in available services. Also worthy of consideration is the growth in interest in outdoor/adventure programs noted at five of the six institutions surveyed. According to student responses, the American dream

may no longer include baseball and apple pie, but sand volleyball, climbing walls, swimming pools, and juice bars.

Less than 10 percent of those surveyed reported that they did not participate in recreation each week. When asked about this lack of participation, the top two answers were, (1) unaware of programs offered, and (2) work schedule/job conflicts. This finding is also supported by another survey response in that the majority of students said they wanted better information and coverage of recreation programs and events in the school newspaper.

Another trend with implications for the future focuses on the growing population of non-traditional students on college campuses. Non-traditional student respondents to the survey (those over 24 years of age) were more dissatisfied with recreation programs and services than their traditional age counterparts. Survey responses also indicate that the lack of childcare and standard evening hours of operation for campus recreation programs are concerns of the non-traditional student. Some campus departments have instituted special plans designed to integrate non-traditional students and their families into current programs. Many more institutions should make changes in recreation programs and services to address more effectively the needs of older students and their families.

Importance of the Study

The NIRSA experiment in inter-institutional data-banking for purposes of program evaluation has important implications for higher education assessment. Ignoring the warnings against establishing common databases for comparative purposes that have been issued by some national disciplinary and professional associations, NIRSA deliberately set out to develop a common data-gathering methodology and central reporting service. The six diverse institutions participating in the pilot project derived several significant benefits from agreeing to share their data openly with each other. This would not have been possible if each institution had conducted its own study in isolation.

Students' responses differed significantly among the six institutions on most of the survey items. Thus it was possible for a given institution to gauge more accurately the relative strengths and weaknesses of its programs. Again, this would not have been the case had data been viewed in isolation and without opportunity for comparison.

Other than the occasional freshman course required of all students, recreation may constitute the single most common experience of college students. This fact, coupled with the similarly strong responses of students at all six institutions concerning the importance of recreational programs and facilities in influencing their decisions to attend and persist at their institutions, provides a persuasive case for channeling increasingly scarce institutional funds into recreation programs. Moreover,

inter-institutional differences made it possible to infer that the stronger the recreation program, the more potent a factor it becomes for students in making these decisions. The argument for a strategy of strengthening and increasing campus offerings in recreation is further advanced by the fact that students derive a healthy sense of physical and mental well-being from recreational involvement that may not come from any other campus activity. Recreation programs increase the likelihood that students will encounter faculty outside class for the kinds of intellectual exchanges that enhance student learning and persistence (Pascarella and Terenzini, 1991). And as we seek to nurture our African-American students, it is helpful to know how much they value recreational activities.

As NIRSA takes steps to make its flexible survey instrument and administrative techniques available to all its members, the organization hopes that sufficient numbers of institutions will elect to take advantage of the new methodology to permit NIRSA to aggregate data by institutional type, relative size of program, quality of facilities and other appropriate criteria. The experience of this association warrants the attention of the assessment community as well as other disciplinary and professional associations. Its initial efforts to encourage member institutions to share assessment data have provided sufficient benefits to participants to lend support to the favorable side of the debate about building common databases that permit institutional comparisons.

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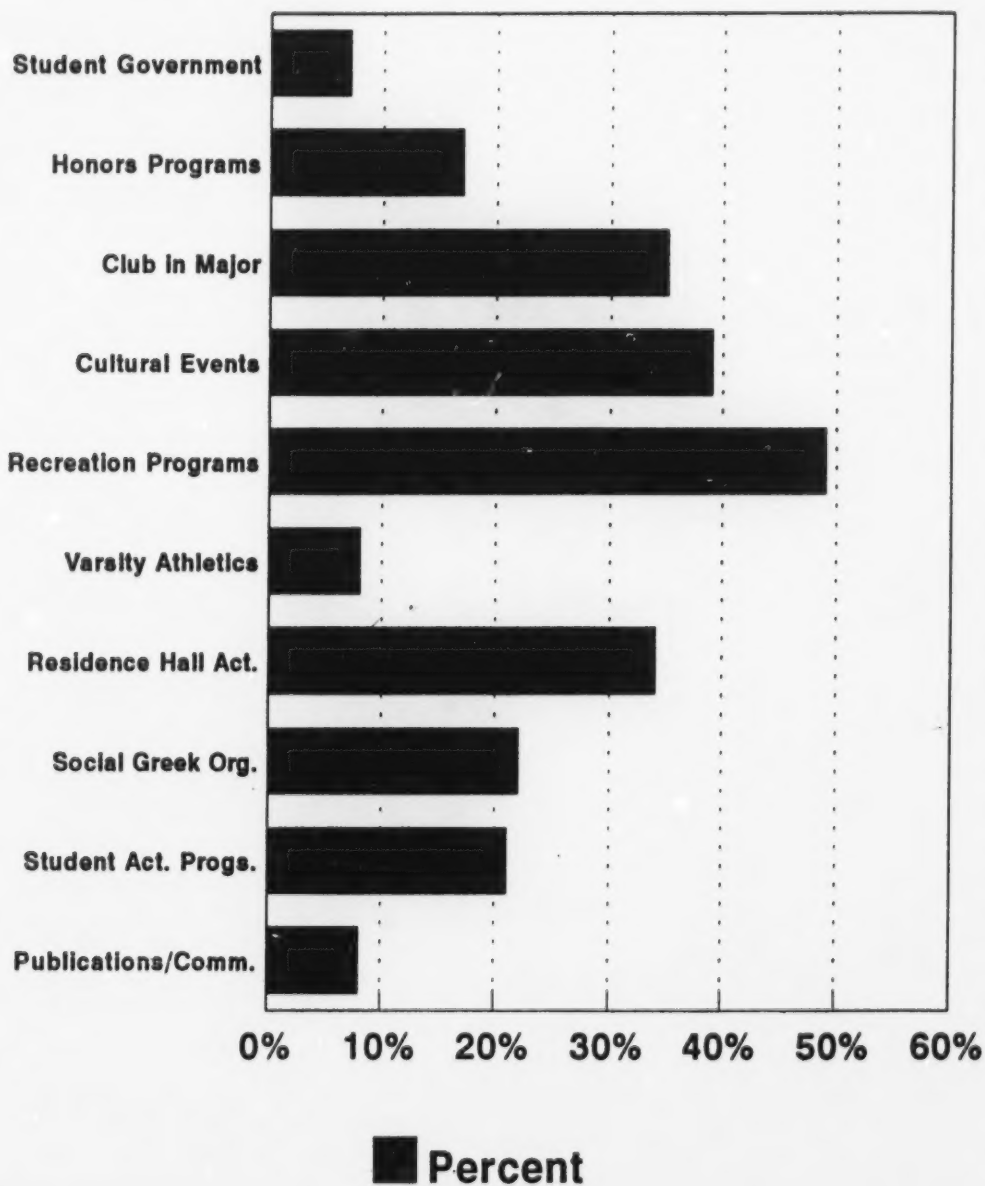
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Chart 1

Participation in Out-of-Class Activities

Percentage of students participating in:



2,586 students from 6 universities
1990-1991 NIRSA Pilot Survey

Table 1						
Level of Benefit Items						
Item	Whites	Afr-Ame	Asians	Others	F	p
Perceived Level of Benefit in						
Self-Confidence - C	1.59	2.07	1.93	1.75	5.11	0.0016
Physical Well-Being - B	1.77	2.16	2.49	2.01	9.76	0.0001
Sense of Accomplishment - B	1.72	1.89	2.14	1.94	3.93	0.0084
Sense of Adventure - C	1.35	1.82	1.74	1.73	7.45	0.0001
Group Cooperation Skills	1.41	1.72	1.65	1.52		
Respect for Others - A	1.59	2.19	1.79	1.71	4.77	0.0026
Friendships - A	1.73	2.17	2.07	1.82	4.18	0.0059
Belonging/Association - B	1.44	1.83	1.93	1.61	5.86	0.0006
Leadership Skills	1.32	1.69	1.53	1.63		
Time-Management Skills - B	1.36	1.83	1.77	1.39	4.88	0.0022
Problem-Solving Skills - A	1.17	1.63	1.29	1.21	2.72	0.0433
Study Habits	1.22	1.48	1.38	1.43		
Weight Control - B	1.48	1.92	1.96	1.67	5.96	0.0005
Sports Skills - B	1.61	1.85	2.04	1.86	4.36	0.0046
Fitness - B	1.78	2.08	2.27	2.09	5.55	0.0009
Physical Strength - B	1.65	1.95	2.18	1.91	5.57	0.0009
Stress Reduction - B	1.69	2.01	2.28	1.94	6.78	0.0002
Balance/Coordination - C	1.59	2.05	2.07	1.81	6.86	0.0001
A = Difference between Whites and African-Americans						
B = Difference between Whites and Asians						
C = Difference between Whites and Both African-Americans and Asians						

Table 2 Interaction Items				
Item	Whites	Afr-Amer	Asians	Other
Percent Who Indicated Activities Encouraged Interaction with				
Other Students	76%	83%	75%	72%
Recreational Staff	25%	20%	28%	31%
Faculty - A	16%	27%	13%	23%
Campus Administrators - B	5%	9%	12%	15%
Area Residents	19%	25%	22%	28%
Total Respondents	1604	75	67	61
A - Chi-Sq = 8.46, p = .037				
B - Chi-Sq = 16.07, p < .001				